

REMARKS

Upon entry of the present Amendment, claims 1 and 3-16 will be pending, of which claims 1, 7 and 10 and will have been amended. In particular, claim 1 will have been amended to clarify that the lens block is integrally formed; claim 7 will have been amended to improve the grammar, idiom and syntax used in the claim so as to clarify the features of Applicants' invention without narrowing the scope of the claim; and claim 10 will have been amended to afford Applicants a scope of protection to which they are entitled.

In view of the herein contained remarks, Applicants respectfully request reconsideration and withdrawal of the rejection together with an indication of the allowability of all the claims pending in the present application, in due course. Such action is respectfully requested and is believed to be appropriate and proper.

Initially, Applicants note with appreciation the Examiner's consideration of the documents cited in the Information Disclosure Statement, filed on September 14, 2006, in the present application. Applicants thank the Examiner for returning, with the afore-noted Official Action, an initialed and signed copy of the Form PTO-1449 that accompanied the September 14, 2006 Information Disclosure Statement.

Applicants note that a Supplemental Information Disclosure Statement (SIDS) was filed, along with a Form PTO-1449, on March 29, 2007, and a Completion of Record was filed on April 17, 2007, along with a copy of a Japanese Office Action, dated February 2, 2007, and an English language translation of the same, with respect to patent family member Japanese Patent Application No. 2004-283813. Applicants respectfully request that the Examiner acknowledge consideration of the documents cited in the SIDS filed March 29, 2007 and the Completion of

Record filed on April 17, 2007 by returning a signed and initialed copy of the Form PTO-1449 that accompanied the SIDS of March 29, 2007 in the next Official communication.

Applicants also note with appreciation the Examiner's acknowledgement of Applicants' claim for foreign priority under 35 U.S.C. § 119(a)-(d), as well as confirmation of receipt of the certified copy of the priority document, and the Examiner's acceptance of the drawings filed on June 12, 2006.

In the above noted Official Action, mailed April 3, 2007, claims 1 and 3-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over CHEN et al. (U.S. Patent No. 6,647,173) in view of MAKIO (U.S. Patent Application Publication No. US 2003/0053744) cited by Applicants. Applicants respectfully traverse the rejection and request reconsideration and withdrawal of the same, and an indication of the allowability of claims 1 and 3-16 in the next Official communication, for at least the reasons provided herein. Applicants submit that the CHEN et al. and/or MAKIO do not teach or suggest Applicants invention as recited in, for example, independent claim 1.

The present invention is directed to an optical switch for switching combinations of optical paths between a plurality of optical fibers. The optical switch comprises, *inter alia*, an integrally formed lens block comprising a plurality of integrally formed collimating lenses. The lens block of the present invention is formed integrally and indivisibly as a single mold with the plurality of collimating lenses, as shown, for example, in Figures 2, 4(a) and 4(b) of the present application. By using the integrally formed lens block of the present invention, it is possible to improve optical characteristics, and to reduce the number of components as compared to systems that include a plurality of discretely formed collimating lenses, thereby enabling cost reduction. Applicants submit that CHEN et al. and/or MAKIO, whether taken alone or in any proper

combination, do not teach or suggest an integrally formed lens block comprising a plurality of collimating lenses which are formed into a single mold with the lens block.

CHEN et al. teaches an optical switch with a moveable optical component as shown in, for example, Figure 1, that uses two discrete lenses. Referring to Figure 1, the optical switch 99 uses two discrete lenses 17 and 18 (as shown, e.g., in Figures 3 and 4) which are combined by using an upright beam 32. The upright beam 32, however, is not a lens block, much less an integrally formed lens block that comprises a plurality of collimating lenses.

Further, at page 3 of the Official Action, the rejection acknowledges that CHEN et al. does not expressly disclose a device body with at least three optical fibers being led out therefrom and therefore relies on MAKIO to teach that which CHEN et al. lacks. Applicants add that not only does CHEN et al. not expressly disclose the device body so configured, but also does not implicitly disclose or suggest such an element. Applicants submit that MAKIO does not teach that which CHEN et al. lacks, namely, an integrally formed lens block comprising a plurality of integrally formed collimating lenses.

MAKIO is directed to an optical switch comprising one input optical fiber, two output optical fibers, a stationary mirror for reflecting a light beam from the input optical fiber to cause it to enter into one output optical fiber, a movable mirror moving into and out of an optical path of a light beam from the input optical fiber, and a mechanism for driving the movable mirror. However, MAKIO does not teach or suggest an integrally formed lens block comprising a plurality of integrally formed collimating lenses such that the collimating lenses are formed into a single mold lens block.

Accordingly, any proper combination of CHEN et al. and/or MAKIO would not teach or suggest an integrally formed lens block comprising a plurality of integrally formed collimating

lenses, as recited in, e.g., independent claim 1. Thus, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1 and 3-16 under 35 U.S.C. 103(a) as being obvious over CHEN et al. and MAKIO.

Since claims 2 and 3-16 depend from claim 1 and are patentably distinguishable for at least the reasons provided above with respect to claim 1, as well as for additional reasons related to their own recitations, Applicants respectfully request the reconsideration and withdrawal of the rejection of claims 3-16 under 35 U.S.C. 103 based on CHEN et al. and MAKIO, and an indication of the allowability of claims 1 and 3-16 in the next Official communication. Thus, Applicants respectfully request allowance of this application to mature into U.S. patent, including claims 1 and 3-16.

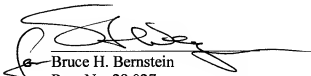
SUMMARY AND CONCLUSION

In view of the foregoing, it is submitted that rejections under 35 USC 103 in the Official Action dated April 3, 2007, should be withdrawn. The present Amendment is in proper form, and none of the references teach or suggest Applicants' claimed invention. In addition, the applied references of record have been discussed and distinguished, while significant features of the present invention have been pointed out. Accordingly, Applicants request timely allowance of the present application.

Should an extension of time be necessary to maintain the pendency of this application, the Commissioner is hereby authorized to charge any additional fee to Deposit Account No. 19-0089.

Should there be any questions regarding this paper or the present application, the Examiner is respectfully requested to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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